The Use of Tiered Environmental Studies in the National Environmental Policy Act (NEPA) Process for Highway Projects

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Abstract: In recent years, there has been a renewed interest in the use of tiering and tiering-like procedures as techniques for managing the National Environmental Policy Act ("NEPA") process for highway projects. However, experience with these procedures remains limited, and guidance materials are scarce. This paper brings together the available information about tiering; assesses the benefits and drawbacks of tiering; and offers general advice about when to use tiering and what issues to consider in a tiered NEPA process. The paper consists of five parts:

- Introduction
- Regulatory Authority and Guidance
- Early Experiences with Tiering
- Recent Developments in Tiering
- Benefits and Drawbacks of Tiering
- Issues to Consider in Preparing a Tiered Study

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INTRODUCTION

Tiering is a procedure for completing the National Environmental Policy Act ("NEPA") process in two separate stages, known as tiers. The first tier involves the preparation of an environmental impact statement ("EIS") that examines a large land area or a broad set of issues associated with a major federal action that triggers the NEPA process. The second tier generally involves the preparation of several separate NEPA documents, which could include EISs, environmental assessments ("EAs"), or even categorical exclusions ("CEs").

Tiering is frequently used by federal agencies that are required by law to prepare comprehensive land management plans (e.g., the U.S. Forest Service), but it has been much less frequently used for linear actions, such as highways. The reluctance to employ tiering for these projects has resulted from several factors: a general lack of familiarity with the procedure, a perception that previously tiered studies had been unsuccessful, and a belief that tiered studies would only add to the cost and complexity of an already time-consuming and complex process.

Since late 1999, however, the Federal Highway Administration ("FHWA") has initiated or completed several tiered EISs. In addition, FHWA has prepared a number of EISs using "tiering-like" procedures – i.e., they have incorporated features of a tiered approach within the context of a traditional, non-tiered process. Finally, a number of States have begun to initiate NEPA studies during the statewide and metropolitan transportation planning process; as part of that effort, at least one State has adopted procedures calling for the preparation of tiered NEPA studies, with a first-tier study taking place during the planning process.

Taken together, these developments reflect a renewed interest in tiering as a means of managing the NEPA process for large and complex highway projects. However, agencies' experience with these procedures remains limited, and guidance materials are still relatively scarce. This paper brings together the information that is available about tiering; assesses the benefits and drawbacks of tiering; and offers advice about when to use tiering and how to approach a tiered NEPA process.

REGULATORY AUTHORITY AND GUIDANCE

The use of tiering for highway projects is authorized under the regulations issued by the Council on Environmental Quality ("CEQ"), which are codified at 40 C.F.R. Part 1500, and under the regulations issued jointly by FHWA and the Federal Transit Administration ("FTA"), which are codified at 23 C.F.R. Part 771. (For purposes of this paper, the joint FHWA/FTA regulations will be referred to as the "FHWA regulations.) Both CEQ and FHWA also have addressed tiering in guidance documents. For highway projects, the most specific and helpful guidance is contained in a June 18, 2000 memorandum issued by FHWA headquarters.

CEQ Regulations and Guidance

The concept of tiering first appeared in the CEQ regulations in 1978, and the regulatory language regarding tiering has remained unchanged since that time.*(1)* The regulations define tiering as "the coverage of general matters in broader environmental impact statements . . . with subsequent narrower statements or environmental analyses . . . incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared."*(2)* The regulations also state that tiering should be used "to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review"*(3)* and as "a means of accomplishing the NEPA requirements in an efficient manner as possible."*(4)*

The CEQ explained its tiering regulations in its "Forty Questions" guidance in 1981. In that guidance, the CEQ noted that on actions covering a broad area, such as large highway projects, a broader or "overview" EIS can serve as a valuable tool to analyze the project's potential direct, indirect, and cumulative impacts on the affected environment.*(5)* The CEQ encouraged the use of tiering in these situations to "avoid duplication of paperwork through the incorporation by reference of the general discussions and relevant specific discussions from an environmental impact statement of broader scope into one of lesser scope or vice versa."

The CEQ addressed tiering again in guidance issued in 1983. In that guidance, the CEQ reiterated its view that Tier 2 documents could avoid duplication of paperwork, by summarizing the issues raised in Tier 1 and incorporating by reference analyses already prepared in Tier 1. *(4)* The CEQ also emphasized that tiering was an

optional procedure best suited for certain types of projects and that an agency has discretion to use tiering when the project or action lends itself to the tiered process.*(4)*

The CEQ also addressed tiering in 1988, in an exchange of correspondence with FHWA regarding a tiered study for a proposed outer beltway around Washington, D.C. (the Washington Bypass project). In a letter to CEQ, FHWA explained that a Tier 1 EIS would be prepared for the bypass project, followed by a series of Tier 2 studies, which could be EISs or EAs.*(6)* The FHWA also explained that it intended to authorize right-of-way acquisition at the end of Tier 1. In response, the CEQ's general counsel stated that FHWA's approach was "fully consistent with the requirements and spirit of the CEQ regulations implementing the procedural provisions of NEPA."*(7)*

FHWA Regulations and Guidance

The FHWA regulations state that "[t]he first tier EIS would focus on broad issues such as general location, mode choice, and areawide air quality and land use implications of the major alternatives. The second tier would address site-specific details on project impacts, costs, and mitigation measures."*(8)*

The FHWA regulations also explain how a tiered NEPA process should address compliance with Section 4(f) of the Department of Transportation Act. The regulations state that the Section 4(f) evaluation in a Tier 1 EIS "should be made on the potential impacts that a proposed action will have on section 4(f) land and whether those impacts could have a bearing on the decision to be made."*(9)* The regulations require consideration of "feasible and prudent alternatives" and "all possible planning to minimize harm" in the Tier 1 EIS, but recognize that "such planning at this stage will normally be limited to ensuring that opportunities to minimize harm at subsequent stages in the development process have not been precluded by decisions made at the first-tier stage."*(9)*

In the Federal Register notice that accompanied its tiering regulations, FHWA stated that a tiered process "is most appropriate where a project concept is still in the formative stages and the applicant is actively seeking information from agencies and the public in helping to reach early decisions."*(10)* It explained that the first tier allows an agency to focus on broad environmental issues, which may correlate directly to early planning decisions, such as the type of project, the general location of a project, and major design features of a project.*(10)*

FHWA did not address tiering in its comprehensive 1987 guidance document for NEPA studies, Technical Advisory T 6640.8A. FTA also has not issued nationwide guidance documents on tiering. However, FHWA headquarters recently issued two memoranda that are pertinent to tiered environmental studies:

FHWA Memo on Use of GIS Data Sources (April 30, 2001)

In a memorandum dated April 30, 2001, the Director of the FHWA Office of NEPA Facilitation addressed the use of Geographic Information Systems ("GIS") in the NEPA process for the Southeast Arkansas I-69 Connector Corridor Study.*(11)* While that study did not involve a tiered EIS, the alternatives analysis involved two distinct stages – first a corridor-selection stage, at which broad corridors were evaluated using GIS data sources, and then an alignment-selection stage, at which detailed studies were conducted for alignments within a preferred corridor. The FHWA memo endorsed this use of GIS data sources (in addition to the limited on-the-ground surveys) at the corridor-selection stage, finding it to be a "reasonable and acceptable approach." However, FHWA cautioned that "the approach is only as good as the data on which it is based and which is presented in the study."

FHWA Memo on Tiering (June 18, 2001)

In a memorandum issued on June 18, 2001, the Director of the FHWA Office of NEPA Facilitation addressed the use of tiering in the NEPA process for a 200-mile-long section of I-70 in Missouri.*(12)* In that case, the Missouri Division of FHWA was in the process of preparing a Tier 1 Draft EIS ("DEIS") for the entire corridor and contemplated preparing a series of Tier 2 studies for projects within the corridor. FHWA headquarters endorsed this approach and provided guidance on how to proceed. The guidance included the following major points:

- The memo stated that FHWA Division Offices have "broad discretion" to decide how to conduct a tiered NEPA process, and should consider two broad principles when exercising that discretion: "(1) explaining the nature of the first and second tier decision-making so that affected parties are fully aware of their opportunities

to influence outcomes at the various decision points and, (2) structuring the decisions to avoid, to the extent possible, a decision on one section forcing an undesirable outcome on another section."

- The memo pointed out that the Federal Register notice that accompanied FHWA's existing tiering regulations discussed "the possibility of using an environmental assessment for second tier actions where no new significant impacts are expected." The memo clarified that FHWA "could also foresee situations in which minor second tier actions qualified as categorical exclusions."

- The memo stated that the three-part "logical termini" test in Section 771.111 of FHWA's regulations should be applied when determining the scope of Tier 1 and Tier 2 studies, as follows:

  (1) The first part of the test generally requires that actions "connect logical termini and be of sufficient length to address environmental matters on a broad scope." The FHWA memo stated that this requirement "should apply only to the first tier of analysis, i.e. the analysis of sections of sufficient length to address environmental matters on a broad scope is the legitimate purview of the first tier of analysis and decision-making."

  (2) The second part of the test requires that actions "have independent utility or independent significance." The FHWA memo stated that this requirement "should be met for both first tier and second tier evaluations since it would not be reasonable to make either strategic decisions or to grant Federal location/design approvals relating to transportation improvements that were not usable and a reasonable public expenditure by themselves."

  (3) The third part of the test requires that actions "not restrict consideration of alternatives for other reasonably foreseeable transportation improvements." The FHWA memo noted that this requirement "is perhaps the most challenging" in the context of a tiered NEPA process. The memo explained that this requirement is "focused on avoiding undesirable outcomes . . . rather than simply preserving the ability to consider alternatives in the abstract." Therefore, it recommended "structuring the decision-making so that the first tier strategic choices . . . not restrict the second tier location and design decisions to alternatives which have highly undesirable consequences, such as unusually severe impacts to communities or the natural environment that might have been avoided with a different first tier strategy."

- The memo recommended "using the first tier DEIS to identify proposed subsections (rather than initial thoughts) for the second tier analysis." The memo pointed out that flexibility can be maintained "by communicating that the subsections are subject to refinement based on comments received."

- The memo stated that "criteria used for establishing subsections [for Tier 2] should take into account both the purpose and need for the subsection projects, and avoiding 'pointing a loaded gun' at an important resource(s) beyond the subsection." The memo also provided some specific examples of how these considerations might affect the designation of break-points for the Tier 2 projects.

- The memo stated that, in order to provide "a framework for flexible decision-making at the second tier," each of the second tier analyses should "look beyond the subsection termini to adjacent subsections for which second tier analyses have not yet been undertaken to ensure that one project doesn't point the 'loaded gun' at resources associated with the adjacent project."

EARLY EXPERIENCES WITH TIERING FOR HIGHWAY PROJECTS

In the late 1980s, FHWA advocated the use of tiering as a means of supporting corridor-preservation efforts in high-growth areas. At that time, FHWA noted the increasing urgency of "ensuring that viable locations will exist for building future highways in the developing fringe of the Nation's metropolitan areas."*(13)* FHWA also expressed concern that the conventional project development process, in which right-of-way acquisition immediately precedes construction, does not recognize the fact that the optimum time for acquisition differs from the optimum time for construction. To address the need for earlier corridor preservation, FHWA proposed the use of tiered NEPA studies, under which corridor-preservation activities would be authorized at the end of Tier 1.

In keeping with this policy, FHWA initiated a number of tiered EISs in the late 1980s and early 1990s. However, for a variety of reasons (most of which had nothing to do with tiering), many of those studies were never completed. Prominent examples of tiered EISs that were never completed include the following projects:

- *Washington, D.C. Bypass (Maryland and Virginia).* In the 1980s, the Maryland State Highway Administration ("SHA") proposed an eastern bypass, which would stretch from I-95 in Northern Virginia to the Routes 50 and 301 in Maryland for a distance of approximately 93 miles. The Virginia Department of Transportation ("VDOT") proposed a western bypass, from I-95 in Northern Virginia to I-70 in Maryland for a distance of approximately 82 miles.*(14)* In 1989, FHWA issued a single notice of intent to prepare a Tier 1 EIS that would consider both projects together. The purpose of the study was to locate a corridor to provide a basis for right-of-way preservation in areas subject to the most intense development pressures.*(15)* The study area encompassed 5,100 square miles and covered two states and 23 counties. However, concerns over the potential for growth-inducing impacts and a lack of consensus on the location of a Potomac River crossing led to the abandonment of the study. In 1996, the project was revived and refocused only on the western bypass, a shorter 50-mile long Western Transportation Corridor (WTC). The DEIS for the WTC project is in progress.

- *Las Vegas Beltway (Nevada).* In 1992, FHWA began a Tier 1 EIS to adopt a corridor location for the northern and western portions of a beltway around the fringes of Las Vegas.*(16)* FHWA approved the Tier 1 EIS on June 7, 1996, and issued a Record of Decision ("ROD") on August 5, 1996.*(17)* However, in 1997, Clark County determined that no federal funds would be necessary to complete the project. As a result, FHWA's involvement ended, and no Tier 2 environmental documents were ever prepared.*(17)*

In addition to these studies, there were approximately ten to twelve projects (eight to ten of which involved new corridors or transportation improvements for highways in California) that utilized the tiered process from the mid-1980s through the mid-1990s. The earliest projects, which primarily were concentrated in Orange County, California, consisted of Tier 1 studies that evaluated a broad number of options for multi-modal facilities to address congestion problems and Tier 2 studies that focused on specific components of those multi-modal facilities, such as widening an interstate or locating an alignment of the new facility.*(18)–(23)* Beginning around 1989, the majority of tiered EISs were used for protecting right-of-way or preserving corridors for highways, particularly in areas of rapid development. FHWA issued Notices of Intent to prepare Tier 1 EISs to define and preserve corridors in Washington County, Oregon and Contra Costa County, California in 1989; in Los Angeles County, California and Livingston, Michigan in 1991; and in Kern County, California in 1994.*(24)–(28)*

RECENT DEVELOPMENTS

In the past few years, there has been renewed interest in the use of tiering and tiering-like procedures for highway projects. Developments in three areas are worthy of note: (1) recent FHWA experience with tiered EISs; (2) recent FHWA experience with EISs that used "tiering-like" procedures; and (3) the efforts by several States to initiate NEPA review in the planning process, which will involve the preparation of a tiered EIS in at least one State.

Recent FHWA Experience with Tiered EISs

Tiered NEPA studies are currently being prepared by FHWA for several major highway projects, including:

- *I-70 (Missouri).* Missouri DOT ("MoDOT") is preparing a Tier 1 EIS to determine strategies for addressing the transportation problems associated with I-70. The Tier 1 EIS is examining a 200-mile long, 10-mile wide corridor from St. Louis to Kansas City, and is intended to help the agency select an overall improvement strategy for the I-70 corridor. The Tier 1 EIS will determine the general scope and location of the project, identify short-term improvements, and define a plan for future action and Tier 2 studies. The Tier 1 EIS was initiated in January 2000. The Tier 1 DEIS was issued in November 2001.*(29)*

- *I-70 Mountain Corridor (Colorado).* FHWA, in cooperation with the Colorado DOT ("CDOT"), is preparing a Programmatic EIS ("PEIS") for the I-70 Mountain Corridor. The PEIS examines a variety of potential solutions, including transit options, highway improvements, alternate routes, improvements to aviation options, and transportation management options (e.g., TDM, TSM, and ITS). The PEIS "will identify a preferred

alternative that addresses expected travel conditions in the year 2020 and develop an environmental mitigation program and guidelines for implementing the preferred alternative."*(30)* Subsequent studies will examine the environmental issues in sufficient detail to satisfy NEPA. The PEIS was initiated in January 2000. The Draft PEIS is expected to be issued in early 2002.*(30)*

- *I-69 (Indiana).* This study involves a study region encompassing 26 counties, a proposed route approximately 150 miles long, and an initial consideration of 14 alternative corridors. FHWA and Indiana DOT ("INDOT") determined that tiering would be appropriate because of the complexity and scope of the environmental analysis required for the project. The Tier 1 EIS was initiated in December 1999. The Tier 1 Draft EIS is expected to be issued in mid-2002, with a Tier 1 Final EIS by the end of 2002.

- *U.S. 301 (Maryland).* U.S. 301 involves a fifty-mile long corridor, which is divided into a northern and a southern corridor based on regional traffic patterns and needs. Because of the length of the project, FHWA and Maryland SHA decided to conduct a tiered environmental process for *each* section – i.e., a tiered study for the northern corridor (approximately 20 miles), and a separate tiered study for the southern corridor (approximately 30 miles).*(31)*

  (1) *U.S. 301 Northern Corridor.* The Tier 1 EIS for the Northern Corridor was initiated in July 1997. The Tier 1 Draft EIS was issued in April 1998, followed by a Tier 1 Final EIS in December 2000, and a Tier 1 ROD on May 18, 2001.*(31)* In the Tier 1 ROD, FHWA identified one specific break-out project for study in Tier 2, and indicated that the termini for the remaining Tier 2 projects would be determined at a later date.*(31)*

  (2) *U.S. 301 Southern Corridor.* The Tier 1 DEIS for the Southern Corridor was initiated in April 2000, and remains in progress. The Tier 1 DEIS will include a Tier 2 analysis for a portion of the corridor (around the town of Waldorf), due to the restricted corridor options in that area.*(32)* The completion of the Tier 1 study will be followed by Tier 2 studies for break-out projects, except in the Waldorf area, where the completion of the combined Tier 1/Tier 2 study will conclude the NEPA process.

- *I-405 (Washington).* FHWA and FTA, in cooperation with Washington Department of Transportation ("WDOT") are proposing a multi-modal system of transportation improvements to reduce congestion and improve mobility in the 1-405 Corridor. These agencies are preparing NEPA documentation under a pilot project called "Reinventing NEPA." This new approach brings the NEPA decision making process into the early planning stages of the project development. The result of this approach is a FEIS that focuses on mode choice, general location of improvements, broad corridor-wide impacts, and transportation system performance. Subsequent NEPA documents will be prepared to analyze the site-specific impacts, project-level details, and mitigation measures. The DEIS was released in August 2001, and FEIS is expected to be issued in late 2001.*(33)*

- *Southeast High Speed Rail Corridor (Virginia, North Carolina).* FHWA, in cooperation with the Federal Railroad Administration, is preparing a tiered EIS for the proposed Southeast High Speed Rail Corridor, which would provide a high-speed passenger rail connection from Washington, D.C., to Charlotte, North Carolina, and eventually to points in South Carolina, Georgia, and Florida. The Tier 1 DEIS was initiated in July 1999. The Tier 1 Draft EIS was issued in August 2001. The ROD is expected to be issued by October 2002.*(34)*

- *Other Projects.* Two more recent tiered EISs that have progressed to the Tier 2 stage include the Trunk Highway 371 in Minnesota, for which the FHWA issued a final Tier 2 EIS in March, 1998,*(35)* and the completion of State Route 167 in Pierce County, Washington, for which the FHWA issued a final Tier 1 EIS in April 1999 and published a Notice of Intent to prepare a Tier 2 EIS in July, 1999.*(36)*

Recent FHWA Experience with "Tiering-Like" Procedures

As explained above, tiering involves a phased NEPA process that involves at least two decision points prior to construction – typically, a full EIS (with a ROD) at Tier 1 followed by one or more full EISs, EAs, and/or CEs at Tier 2. As an alternative to tiering, FHWA has prepared several recent EISs using procedures that are similar to tiering but only involve a single ROD, which is issued at the conclusion of the entire process. There are two main variants of this approach, which are reflected in the following examples:

- *Corridor H.* The Corridor H project involved a proposal to complete a four-lane highway approximately 120 miles long in northeastern West Virginia as part of the Appalachian Development Highway System. The environmental process consisted of two separate DEISs, a single FEIS, and a single ROD. The first DEIS evaluated five separate 2,000-foot-wide corridors; it was followed by a "decision document" (not a ROD) that identified a preferred corridor for further study. The second DEIS then evaluated specific alignments within the preferred corridor. The second DEIS was followed by a single FEIS and a single ROD, which concluded both the corridor-selection and the alignment-selection phases of the study.

- *Southeast Arkansas I-69 Connector*. The Southeast Arkansas I-69 Connector involved a forty-mile highway segment that links Pine Bluff, Arkansas to the proposed I-69 Corridor. For this project, the environmental process involved a single DEIS, a single FEIS, and a single ROD – the traditional set of NEPA documents. However, within the DEIS, the analysis of alternatives involved two stages – first, an analysis of alternative corridors, based primarily on Geographic Information Systems (GIS) data, and then an analysis of specific alignments within a single preferred corridor, based on more extensive field study data.*(37)* The use of GIS information in the screening process for this EIS was approved by FHWA headquarters in its April 30, 2001 memorandum discussed above. Similar approaches have been used in other States, including Louisiana.

Initiation of NEPA Reviews During the Planning Process

The concept of tiering also is receiving renewed attention in the context of efforts to improve the linkage between transportation planning and the NEPA process. In particular, consideration is being given to the use of a Tier 1 EIS to address Congress' mandate to eliminate the major investment study ("MIS").*(38)*

In Section 1308 of the Transportation Equity Act for the 21st Century ("TEA-21"), Congress directed USDOT to eliminate the MIS requirement in FHWA's regulations and integrate the analyses required as part of an MIS into the planning and NEPA processes.*(39)* While proposed regulations to eliminate the MIS requirement have been issued, no final regulations have been adopted. However, as a practical matter, the preparation of MIS documents has been discontinued. In the absence of new requirements or specific guidance, States and MPOs have experimented with various approaches to integrating the corridor-level planning process with the project development process. Some of these approaches contemplate the initiation of NEPA studies during the planning process, followed by more detailed NEPA studies during the project development process.

- Oregon has developed policies that allow for a NEPA document (generally an EIS) to be prepared during the "refinement planning" process, with the goal of supporting a "location decision" but not a "design decision" regarding proposed highway improvements.*(40)* The Oregon policy calls for a broad-scale NEPA document to be completed (i.e., a Record of Decision would be issued) at the refinement-planning stage, thus clearing the way for right-of-way acquisition within the selected corridor. This policy is intended to facilitate local land use planning, by allowing land use planners to take into account the general location of a future transportation project many years before the project is actually built. The Oregon policy states that further environmental documentation will be required in the design stage. While the policy does not specifically require that additional *NEPA* study be prepared in the design stage, it does state that further NEPA documentation generally will be necessary unless the resulting project qualifies for a CE.

- Indiana has adopted policies requiring the initiation of an EA for major proposed transportation projects when there is not yet consensus on the design concept and scope of the proposed project.*(41)* The Indiana policy contemplates that the EA will transition to an EIS at the point where sufficient consensus has been achieved on the design concept and scope for a specific proposed project. Like the Oregon policy, the Indiana policy calls for the *initiation* of NEPA studies during the corridor planning process. This approach, if successful, shortens project development times by achieving early resolution of major project issues – including purpose-and-need and the screening of alternatives. However, unlike the Oregon policy, the Indiana policy does not call for the *completion* of a NEPA study at the planning stage – i.e., there is no ROD issued for a preferred corridor during the planning process. As a result, the Indiana policy does not authorize right-of-way acquisition at the conclusion of the planning stage.

- Other States have decided not to initiate NEPA studies during the corridor planning process, and instead have continued the traditional practice of preparing "feasibility studies" (or similar analyses) for proposed improvements at the planning stage. These non-NEPA studies may be similar in scope or content to the NEPA documents prepared by other States during the planning stage, but they generally lack the public and agency involvement and the overall formality of a NEPA study. As a result, non-NEPA studies conducted at the planning stage generally do not provide a basis for resolving purpose-and-need or other project development issues, nor does it result in authority to acquire right-of-way at the conclusion of the planning stage.

While none of these policies specifically calls for tiering, the Oregon approach necessarily involves a tiered NEPA process: it requires completion of an initial NEPA study (including a ROD) on "location" issues in the refinement planning process, followed by an additional NEPA study on "design" issues in the project development process. This process is time-intensive, but it yields significant benefits: because it results in a *completed* NEPA study during planning, it allows right-of-way acquisition to take place upon the completion of the planning process, and results in true finality in the selection of location and mode choice, prior to the initiation of the project development process.

As this discussion shows, the use of a tiered NEPA process can be a powerful tool for achieving closure on issues of location and mode choice at the end of the planning process. While it is too early to tell whether tiering will be widely used for this purpose, the need to achieve a better integration of planning and project development is likely to provide an additional impetus for the use of tiered NEPA procedures.

BENEFITS AND DRAWBACKS

To assist practitioners in deciding whether to use tiering, this section of the paper outlines some benefits and drawbacks of the tiered approach. It also briefly outlines the benefits and drawbacks of tiering-like procedures.

Benefits and Drawbacks of Standard Tiering Procedure

The standard tiering procedure involves a full EIS (including a ROD) at Tier 1, followed by multiple NEPA documents for a series of separate actions at Tier 2. This method has both benefits and drawbacks as a tool for managing the NEPA process for large and complex federal actions. These include:

Benefits

- Tiering provides the flexibility to achieve two goals that are often in conflict – *widening the range of alternatives*, while at the same time *increasing the level of detail* in the analysis of alternatives.

- Tiering expedites the resolution of big-picture issues, such as general location and mode choice, so that subsequent studies can focus solely on project-specific impacts and issues.

- Tiering permits early right-of-way acquisition and corridor preservation in areas of existing and anticipated rapid growth and development.

- Tiering expands the opportunities for public and agency input by breaking the environmental analysis into two levels. Individuals with a strong interest in the overarching questions of route location and mode choice can participate extensively at Tier 1; those who are more interested in localized impact and mitigation issues can focus their efforts on the specific Tier 2 project or projects that involve those issues.

- Tiering allows environmental analyses for each Tier 2 project to be conducted closer in time to the actual construction phase, as funds become available for construction, thereby improving the usefulness of the studies and reducing the chance that supplementation will be necessary.

- Tiering offers an appropriate mechanism for linking broader scale planning and project level decision making.

- Tiering may actually *save* time and/or money, by ensuring that environmental issues are addressed at an appropriate level of detail at each stage of the process, and thus avoiding excessive documentation of detailed issues too early in the process.

Drawbacks

- Federal and state agency officials involved in the NEPA process often have little or no experience with the use of tiering for highway projects.

- The public at large generally has little familiarity with the tiered process, and the complexity of the process may make it more difficult for the general public to understand than a traditional non-tiered NEPA process.

- Regulatory requirements under other laws – e.g., laws protecting wetlands, historic sites, and endangered species – do not specifically provide for tiering, and must be adapted to the tiered process.

- The tiered process could be challenged in court, and the lack of experience with tiering makes it difficult to predict how courts would evaluate the adequacy of a tiered NEPA process.

Benefits and Drawbacks of Tiering-Like Procedures

As explained above, "tiering-like" procedures have been used for Corridor H and other highway projects. These procedures are similar to tiering in that they involve a staged analysis of alternatives – e.g., corridor selection followed by alignment selection. However, they differ from tiering because all of the stages occur within a single NEPA process, which results in a single ROD. The benefits and drawbacks of this type of approach include:

Benefits

- Breaking the analysis of alternatives into two (or more) distinct stages may help to make the process more manageable for the agencies involved and easier for the public to understand. Thus, this process still provides some of the benefits of a tiered NEPA process.

- In comparison to a tiered approach, this approach may provide greater flexibility to "circle back" to the corridor-selection decision if unanticipated impacts are identified in the alignment-selection studies.

Drawbacks

- These procedures do not provide a basis for FHWA to authorize right-of-way acquisition following the first-stage (corridor-selection) study; such authorization can only be granted after a ROD is issued, and there is no ROD under these procedures until the very end of the process.

- These procedures also do not fully resolve issues of location and mode choice in the first-tier study; these issues are only tentatively resolved at that stage, pending additional review in the second-tier study.

ISSUES TO CONSIDER WHEN PREPARING A TIERED EIS

There is no standard "cookbook" for preparing a tiered EIS for a surface transportation improvement action. As a result, the preparers of a tiered NEPA study must grapple with a range of difficult issues, including:

- Determining the federal action in Tier 1 vs. Tier 2
- Purpose-and-need in Tier 1 vs. Tier 2
- Alternatives analysis in Tier 1 vs. Tier 2
- Level of detail in Tier 1 vs. Tier 2
- Regulatory compliance in Tier 1 vs. Tier 2
- Public involvement and agency coordination at Tier 1 vs. Tier 2

Determining the Federal Action

A tiered NEPA process involves two distinct actions by FHWA – an action at the end of Tier 1, and another action (or multiple actions) in Tier 2. An important issue to consider is the nature of the FHWA action at the end of Tier 1. Clearly, some kind of approval is granted in the ROD at the end of Tier 1. Just as clearly, the approval granted at the end of Tier 1 is more preliminary than the approval granted at the end of the typical, non-tiered NEPA process. So what does the Tier 1 approval involve? The starting point for considering this issue is Section 771.113(b) of the existing FHWA NEPA regulations. According to that provision, FHWA's acceptance of a ROD signifies "acceptance of the general project location and concepts described in the environmental document." Consistent with this principle, a Tier 1 ROD can approve mode choice and corridor location, thus precluding those issues from being revisited in subsequent NEPA studies. However, the exact nature of the approval granted in the Tier 1 ROD will vary from case to case, depending on the "general project location" and "concepts" presented in the Tier 1 EIS.

Defining Purpose and Need

In the context of a tiered NEPA process, it is necessary to consider purpose-and-need on two levels. In Tier 1, it is necessary to develop a purpose and need for the federal action as a whole. Since the action examined in a Tier 1 EIS is typically very large (often 100 miles or longer), the purpose-and-need statement in Tier 1 typically will focus on broad regional and even national objectives. This broad focus is appropriate for Tier 1, when the alternatives under consideration involve general location and mode choice. However, the broadly defined Tier 1 purpose and need may not be sufficient for purposes of Tier 2 studies. In particular, if the actions examined in Tier 2 involve small sub-sections of the overall action, it may be necessary to develop more specific statements of purpose-and-need in each of the Tier 2 studies. Tiering allows the agencies to tailor the purpose and need for each independent segment to comport with local priorities. In such cases, an important challenge for preparers of the EIS is to determine which objectives should be defined in the Tier 1 purpose-and-need statement and which should be defined in Tier 2. In addition, while it is appropriate for different sub-sections to serve different purposes, it is important to ensure that all purpose-and-need statements – in Tier 1 and Tier 2 – are fundamentally consistent with one another in terms of their underlying assumptions and supporting data.

Defining and Analyzing Alternatives

The alternatives in a tiered NEPA process are defined differently at Tier 1 and Tier 2. In Tier 1, an "alternative" is typically defined in terms of a broad corridor rather than a specific right-of-way. For example, some studies have defined alternatives at Tier 1 as corridors of a fixed width (e.g., 2,000 feet); other studies have defined alternatives as corridors of varying width, which allows the corridor to be narrower in sensitive areas or to be broader in areas where it is necessary to carry forward a wider range of alignments for consideration in Tier 2.

Regardless of which approach is used, the evaluation of broad corridors presents a major challenge – namely, how to evaluate impacts or estimate costs without having even a preliminary definition of the transportation improvement's footprint. One way to address this problem is simply to inventory resources within each of the broad corridors; this approach is frequently used in non-tiered studies that involve separate corridor-selection and alignment-selection stages (as in the corridor-level DEIS for Corridor H). Another approach, which is being used on the I-69 project in Indiana, is to develop one or more "working alignments" within each of the corridors evaluated at Tier 1. The working alignments are used as the basis for developing preliminary estimates of costs and impacts for each corridor.

Determining the Appropriate Level of Detail

Perhaps the greatest challenge in preparing a tiered EIS is determining the appropriate level of detail for the Tier 1 EIS. By definition, the tiered process allows a lower level of detail in a Tier 1 EIS than would be allowed in a traditional, non-tiered EIS. However, it often is difficult in practice to determine which analyses must be conducted at Tier 1 and which can be deferred until Tier 2. This difficulty is likely to be greatest when the agencies involved in preparing the Tier 1 EIS have little or no experience with a tiered NEPA process for highway projects.

The basic rule of thumb for determining an appropriate level of detail in Tier 1 is that the detail must be sufficient to allow an informed choice among the alternatives being studied. This rule places the emphasis in Tier 1

on evaluating the *relative* differences among the corridor-level alternatives (including the No Build). This type of evaluation generally will involve three types of activities in Tier 1: (1) inventorying resources located within the corridors, (2) estimating potential impacts or a range of impacts based on suggested working alignments, and (3) developing mitigation strategies.

- The task of inventorying resources begins with the compilation of existing information, often using GIS mapping. However, depending on the amount of existing information available, it often will be necessary to gather additional information through field research at Tier 1. The need for additional field research must be determined in consultation with the appropriate resource agencies.

- In addition to inventorying resources within each corridor, the Tier 1 EIS generally will involve some effort to estimate the impacts and costs of constructing the proposed project within each corridor (i.e., within each corridor that is carried forward for detailed study). One way to develop such estimates is to generate working alignments within the corridors, as is being done for I-69 in Indiana.

- Given the limited design detail available at Tier 1, it generally is not possible to develop specific mitigation plans. However, it may be possible to discuss overall mitigation opportunities and strategies for addressing impacts identified at Tier 1.

At Tier 2, the agency examines a range of specific alignments within the corridor selected in Tier 1. The concrete nature of the alignments allows the agency to focus on the specific resources impacted by each alignment alternative. Building on the environmental inventory established in Tier 1, the agency is able to identify specific resources impacted rather than making estimates of resources potentially impacted. This stage may require the agency to conduct extensive field analyses and consultation with resource agencies, which may require more detail because actual construction is more imminent after Tier 2 than Tier 1. For the second tier, the agency can make a detailed assessment of those impacts and refine its assessments made in the first tier. Furthermore, the agency can develop specific mitigation measures more fitting to the type of resource and impact.

Integrating the Tiered NEPA Process with Other Regulatory Requirements

In the traditional non-tiered NEPA process, the NEPA document must demonstrate that the action will satisfy the requirements of numerous other laws, including Section 106 of the NHPA *(42)*, Section 4(f) of the Department of Transportation Act *(43)*, Section 7 of the ESA *(44)*, and Section 404 of the CWA.*(45)* Tiered NEPA studies also must meet these same requirements, even though the Tier 1 studies are inherently unable to provide the site-specific detail that would be found in either a traditional non-tiered EIS or in a Tier 2 EIS. Unfortunately, with the exception of Section 4(f), the regulations issued under these other laws do not specifically provide for tiering, nor is there written agency guidance on this topic. As a result, case-by-case interpretation – often at the field office level – generally is needed to determine how to satisfy the requirements of those laws in the context of a tiered NEPA process.

To ensure that regulatory requirements are satisfied, while also achieving the benefits of tiering, it is essential for preparers of a Tier 1 EIS to review the regulations carefully to identify *existing* mechanisms that may provide the flexibility necessary to accommodate a tiered process. For example, Section 106 of NHPA allows an agency to adopt a phased approach, which enables the agency to identify historic resources and effects in a phased manner appropriate to the development of the alignments *(42)*; Section 4(f) of the Transportation Act contains provisions that allow for more flexibility when NEPA documents are prepared under a tiering process *(43)*; and Section 7 of the ESA allows the USFWS to prepare biological opinions in incremental steps over an entire project, which may provide one means of dealing with a tiered NEPA process*(44)*

Involving the Public and Coordinating with Resource Agencies

Public involvement and agency coordination are particularly important in a tiered NEPA process, because of the unusually large scope of the process and because the process is unfamiliar to the public and to many agencies. An important part of this effort is the development of a clear and readily understandable explanation of how the tiered process will work, including especially what decisions will be made and the timing of those decisions. It also may be appropriate to document the tiered approach in one or more agreements with resource agencies – e.g., in a

programmatic agreement outlining the steps required for Section 106 consultation, as was done for the U.S. 301 Northern Corridor Tier 1 EIS.

CONCLUSION

Tiered environmental documents are being used more often by states in performing large surface transportation improvements. Tiering can be very helpful, especially in areas of existing or anticipated rapid development. The present challenge facing the transportation community is the development of appropriate guidance and best practices for tiered studies, so that it is no longer necessary for new, customized procedures to be developed for each tiered study.

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